Summary of Testimony of
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Federal Energy Regulatory Commission
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before the
Subcommittee on Water and Power
Committee on Resources
United States House of Representatives

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Competition is growing in wholesale power markets, in response to the Energy Policy Act of 1992 and the Federal Energy Regulatory Commission's efforts to remove barriers to competition and to let markets -- not regulators -- determine the price of wholesale power. This competition reduces prices for end users even without retail choice by lowering the cost of power purchased for them by utility suppliers.

The Commission's efforts to promote competition in wholesale power markets center on two initiatives. The first initiative, the adoption of Order No. 888 in 1996, sought to promote competition by increasing the availability of transmission services needed by wholesale sellers and buyers in order to trade power. Order No. 888 required all public utilities that own, control, or operate facilities used for transmitting electric energy in interstate commerce to file open access non-discriminatory transmission tariffs.

The second initiative was proposed recently by the Commission and seeks additional efficiencies and competitive benefits by strongly encouraging the formation of regional transmission organizations, or "RTOs," to operate the transmission grid on a regional basis. The Commission proposed minimum characteristics and functions that an RTO must satisfy, such as independence from market participants and sufficient geographic scope and configuration. The Commission seeks to adopt final rules on RTOs by the end of this year.

To fully realize the competitive goals set by Congress in the Energy Policy Act of 1992 and promoted by the Commission since then, any Federal electricity legislation should: bring all transmission facilities in the lower 48 states within the Commission's open access transmission rules; reinforce the Commission's authority to promote regional management of the transmission grid through regional transmission organizations;

and, establish a fair and effective program to protect the reliability of the bulk power system.

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Mr. Chairman and Members of the Subcommittee:

I am pleased to appear before you today to discuss the status of federal regulatory initiatives on electricity restructuring and the future of the power marketing administrations. Thank you for this opportunity.

The Federal Energy Regulatory Commission (Commission or FERC) is fully engaged in promoting competition in the wholesale or "bulk power" market, consistent with the goals of the Energy Policy Act of 1992. To achieve these goals, the Commission's fundamental regulatory policies are to substitute competition for price regulation in wholesale power markets to the extent possible, and to regulate essential transmission facilities so as to enable competition in power markets.

My testimony will focus on two Commission initiatives that are very important for promoting wholesale competition. The first initiative, Order No. 888, has for three years promoted competition by requiring that owners of high voltage transmission make services available to all sellers and buyers of wholesale power that are comparable in quality to the transmission services they provide for their own generation. The Commission's second initiative, a proposed rule adopted unanimously on May 12, 1999, seeks substantial additional efficiencies and competitive benefits by strongly encouraging the formation of regional transmission organizations, or "RTOs," to operate the transmission grid on a regional basis. Finally, I will address how the competitive market would benefit if the transmission services of the Tennessee Valley Authority and the federal power marketing administrations were subject to the same rules the Commission either applies or proposes to apply to public utilities.

Jurisdictional Background

The Commission's jurisdiction under the Federal Power Act (FPA) extends to sales of electricity by "public utilities" to other utilities -- that is, wholesale transactions -- and transmission in interstate commerce by public utilities. Public utilities are mainly investor-owned utilities. Federal power marketing administrations (PMAs), municipal utilities, and those rural electric cooperatives still owing debt to the Rural Utilities Service are not public utilities. While the Commission has jurisdiction under sections 211 and 212 of the FPA to order those non-public utilities to provide transmission in certain circumstances, this jurisdiction is limited. The Commission also has very limited authority, by delegation from the Secretary of Energy, to review rates charged by the PMAs.

Sections 205 and 206 of the FPA require the Commission to ensure that the rates, terms and conditions imposed by public utilities for wholesale sales and transmission in interstate commerce are just and reasonable and not unduly discriminatory or preferential. Courts have construed this responsibility to include consideration of any anticompetitive effects of regulated aspects of utility operations. (E.g., Gulf States Utilities Co. v. FPC, 411 U.S. 747 (1973)).

The Commission does not regulate either the sales directly to consumers or the local distribution of electricity. Those retail services are generally regulated by the states. The electricity prices paid by retail consumers nevertheless include the cost of any power purchased by their utility suppliers in wholesale markets. So, competition in bulk power markets ultimately benefits consumers by reducing the cost of power supplied to them, whether or not a state chooses to allow retail competition.

The development of competition in bulk power markets depends substantially on whether wholesale sellers are able to deliver power to buyers anywhere in the market. Access to buyers is key. In the electric industry, transmission facilities make this possible by forming an interstate grid for delivering power, in the same way the interstate highway system allows trucks to deliver other commodities. There are important differences, however. Electricity cannot be stored. It is delivered instantaneously over an integrated network of wires and a transaction between two parties can affect the capacity of the system and thereby the transactions of others. Most importantly, the electrical grid is owned by individual utilities and, absent regulation, these utilities can effectively prevent the use of these facilities by their competitors.

Recent Developments In Regulation Of Wholesale Markets

Public utilities, once presumed automatically to be vertically-integrated monopolies in need of heavy regulation, have been increasingly subject to the forces of competition over the past two decades. This is attributable to a complex combination of economic, legislative, and technological developments. Most notably, Congress gave competition a strong boost in the Energy Policy Act of 1992, increasing the Commission's authority under FPA section 211 to order transmission service in appropriate circumstances, even over the wires of TVA or an ERCOT utility. AES Power Inc., 74 FERC ¶ 61,220, order on reh'g, 76 FERC ¶ 61,165 (1996). In addition, the Commission has increasingly relied on light-handed rate regulation for power suppliers shown to lack market power, specifically by allowing power sales at market rates instead of rates determined by the Commission based on the cost of service. To date, the Commission has authorized market-based rates for hundreds of power suppliers. These authorizations, in effect, have induced many non-traditional competitors into the business of buying, selling, and trading bulk power.

Order Nos. 888 and 889

Several years ago, the Commission recognized that competition in wholesale markets was being inhibited by the lack of non-discriminatory access to transmission facilities. Sellers of power who also owned transmission facilities were stifling competition by discriminating against others seeking to use their transmission facilities, either by denying or delaying transmission service or by imposing discriminatory rates, terms and conditions for service.

Consequently, in 1996, the Commission adopted new rules called Order Nos. 888 and 889, seeking to promote both competition by thwarting undue discrimination in the provision of transmission services and market transparency by encouraging disclosure of real-time information about transmission capacity. Order No. 888 required all public utilities that own, control, or operate facilities used for transmitting electric energy in interstate commerce to: (1) file open access non-discriminatory transmission tariffs containing, at a minimum, the non-price terms and conditions set forth in the Order; and (2) functionally unbundle wholesale power service. Under functional unbundling, the public utility must take transmission service under the same tariff by which it offers service to others and must provide separate rates for wholesale generation, transmission, and ancillary services.

The above-mentioned limits on the Commission's transmission jurisdiction prevented the requirements of Order No. 888 from applying to the one-third of the transmission system owned by non-public utilities. Order No. 888 therefore provided that any non-jurisdictional entities seeking to use the new open access transmission tariff of another utility must offer reciprocal transmission service to the public utility providing service to them, unless such users had no transmission facilities. The reciprocity principle was applied to all transmission users, including the PMAs, municipal utilities and cooperatives still owing debt to the Rural Utilities Service. The Commission intended to prevent users from taking advantage of competitive opportunities allowed by open access while offering only inferior service, or no service at all, over their own facilities. The Commission also provided "safe harbor" rules allowing users to demonstrate that the services they offered met this requirement. A number of users have satisfied these safe harbor rules.

Taking a tentative step beyond functional unbundling, Order No. 888 encouraged, but did not require, the formation of Independent System Operators (ISOs), regional entities that would operate transmission facilities owned by others. While the Commission believed ISOs could provide significant benefits, such as more opportunities for trading power regionally, improved transmission pricing, and greater assurance of non-discriminatory transmission services, Order No. 888 only enunciated the eleven principal attributes of ISOs that could be used to evaluate future ISO proposals.

Order No. 888 also addressed market-based rates for proposed new power plants. The Commission concluded that utilities seeking such rates for future power plants would no longer be required to demonstrate a lack of generation-based market power, unless an intervenor in the case presented specific evidence of a seller's market power. We have since relied on this policy in granting market-based rates to many applicants.

The Commission recognized that Order No. 888's open access transmission tariffs could allow a customer to use a public utility's transmission facilities to begin buying power from a new wholesale power supplier other than its existing public utility supplier. If this happened, the Commission announced that it would allow the public utility to seek recovery of its legitimate, prudent, and verifiable "stranded costs," so long as the utility had a reasonable expectation of continuing to serve the wholesale customer. Many stranded cost claims have been settled or obviated by the sale of generation assets at prices above their book value; the Commission has fully adjudicated and ruled on only one stranded cost case. City of Las Cruces, N.M.

v. El Paso Electric Co., Opinion No. 438, 87 FERC ¶ 61,201 (1999).

The Commission also said that, if costs are stranded by retail competition, utilities should look to the states first for recovery of those costs. The Commission would become involved only if state regulators lack authority under state law to provide for stranded cost recovery. In cases where retail customers become wholesale purchasers, the Commission said it would be the primary forum for recovery of stranded costs but would give substantial deference to any state determinations.

Order No. 889, adopted concurrently with Order No. 888, required public utilities to establish or participate in Open Access Same-Time Information Systems (OASIS), Internet-based systems for posting information about available transmission capacity and making reservations for transmission services. Order No. 889 also required public utilities to comply with standards of conduct designed to prevent their employees (or the employees of their affiliates) engaged in wholesale power marketing functions from obtaining preferential access to transmission system information.

Subsequent Changes In The Industry

Since the Commission adopted Order Nos. 888 and 889, the pace of change among utility companies has continued to accelerate. The Commission has reviewed and acted upon almost two dozen major utility mergers. Electric utilities and gas pipeline or distribution companies have combined to form major energy concerns. Traditional electric utilities have divested ten percent of the Nation's electric generation plants, and a number of these utilities are seeking to become only "wires" (i.e., transmission and distribution) companies. The number of power marketers and independent generation facility developers entering the marketplace has continued to rise, placing additional competitive pressure on traditional utilities. Six ISOs, four of which are currently operational (including the ERCOT ISO, which is not regulated by FERC), have been established to operate regions of the transmission system. Several state legislatures have required their utilities to join a FERC-approved regional transmission entity. Trade in bulk power markets has continued to increase significantly and the Nation's transmission grid is being used more heavily and in new ways, sometimes creating new patterns of congestion. Finally, 20 state legislatures have enacted legislation to initiate, or set a date for, retail electricity competition, and a handful of utility commissions in other states have done the same by regulation. In

other words, the regulated industry has had to change to meet the strategic and economic challenges of the competitive marketplace.

Yet, despite the growth in competition following Order Nos. 888 and 889, not all potential market problems have been addressed. The remaining impediments to full competition fall largely into two categories. First are the engineering and economic inefficiencies inherent in the current operation and expansion of the transmission grid, inefficiencies that are hindering fully competitive power markets and imposing unnecessary costs on electric consumers. Changes in trade patterns and industry structure have made it more difficult to maintain reliable grid operations, manage transmission congestion, and plan for expansion of transmission facilities. Without further reform, traditional pricing and transmission practices will likely hinder the further development of competitive and efficient bulk power markets. Among these impediments are the "pancaking" of transmission access charges from one system to the next, the absence of clear and tradeable transmission rights, and the virtual absence of a secondary market in transmission service.

The second category of impediments consists of continuing opportunities for transmission owners to unduly discriminate in the operation of their transmission systems so as to favor their own or their affiliates' power marketing activities. As profit-maximizers, utilities that control monopoly transmission facilities and also have power marketing interests have incentives to deny equal quality transmission service to competitors.

While Order Nos. 888 and 889 addressed many forms of undue discrimination by requiring public utilities to separate transmission and power marketing functions, to take transmission service under the same tariff that governs service to others, and to avoid any preferential treatment of their power sales operations, many market participants continue to allege, and the Commission has in some cases confirmed, that transmission service problems related to discriminatory conduct persist. Allegations relate to standards of conduct violations and manipulations of the operation of transmission systems to frustrate power marketing competitors, for example by the imposition of transmission curtailments on congested lines. As might be expected in maturing commodity markets, there is a great deal of mistrust among market participants with respect to the fairness of the system. The pace and scope of restructuring and the future of certain companies therefore remain uncertain.

Proposed Rules On RTOs

To address these problems, the Commission recently proposed new rules on Regional Transmission Organizations (RTOs). RTOs can include ISOs as well as for-profit transmission companies (transcos) that both own and operate the regional transmission system. The purpose of the proposed rules is to facilitate and, if possible, accelerate the voluntary formation of RTOs. The Commission did not propose to require utilities to participate in an RTO by a date certain, but has sought public comment on whether it should do so.

The Commission proposed minimum characteristics and functions that an RTO must satisfy. The four required characteristics are that the RTO must: (1) be independent from market participants; (2) serve a region of sufficient scope and configuration to internalize problems associated with unscheduled parallel path flows and allow the RTO to perform effectively and support open, efficient and transparent power markets; (3) have operational responsibility for all transmission facilities under its control; and (4) have exclusive authority for maintaining the short-term reliability of the grid it operates. If an RTO is properly structured in these ways, the Commission anticipates that it will be able to regulate with a lighter hand and leave substantial market decisions to the stakeholders.

In addition to these fundamental characteristics, a qualifying RTO must shoulder responsibility in seven specific areas. The RTO must: (1) administer its own transmission tariff and use a transmission pricing system that promotes efficient use and expansions of transmission and generation facilities; (2) ensure the development and operation of market mechanisms to manage transmission congestion; (3) develop and implement procedures to address parallel path flow issues both within its own region and with other regions; (4) serve as supplier of last resort for all ancillary services required by Order No. 888 and other Commission orders; (5) be the single OASIS-site administrator for all transmission facilities under its control and independently calculate the total transmission capacity and available transmission capacity; (6) monitor markets for transmission services, ancillary services and bulk power to identify design flaws and market power and propose appropriate remedial actions; and (7) be responsible for planning necessary transmission additions and upgrades in coordination with appropriate state authorities.

Under the proposed rules, all public utilities (except those already participating in an approved entity meeting the

Commission's ISO principles) that own, operate, or control interstate transmission facilities must file with the Commission by October 15, 2000 a proposal for an RTO with the minimum characteristics and functions ultimately adopted by the Commission or, alternatively, a description of efforts to participate in an RTO, any existing obstacles to RTO participation, and any plans to work toward RTO participation. Each proposed RTO would have to be operational by December 15, 2001, if the proposal were adopted.

Public utilities already participating in an approved entity meeting Order No. 888's eleven principles (currently, the NEPOOL ISO, the California ISO, and the PJM ISO; the Midwest ISO and the New York ISO are approved but not yet operational) must make a filing no later than January 15, 2001, explaining the extent to which the entity in which it participates meets the minimum characteristics and functions for an RTO or proposing to modify the entity to become an RTO. Alternatively, the public utility must file an explanation of efforts, obstacles and plans with respect to how it might conform to these characteristics and functions.

The Commission based the proposed rules on its authority under sections 205 and 206 of the FPA to ensure that rates, terms and conditions of transmission and sales for resale in interstate commerce by public utilities are just, reasonable and not unduly discriminatory or preferential. To this extent, the Commission's approach is similar to that which it employed in unbundling natural gas pipeline services under Order No. 636. The Commission also relied on its authority under section 202(a) of the FPA to promote and encourage regional districts for the voluntary interconnection and coordination of transmission facilities by public utilities and non-public utilities for the purpose of ensuring an abundant supply of electric energy with the greatest possible economy.

If properly constituted and truly independent, RTOs will be a major step in addressing remaining obstacles to competition and obtaining major efficiencies. First, RTOs will ensure that vertically-integrated transmission-owning utilities do not discriminate in favor of their own generation over another seller's generation. Second, RTOs can be structured to eliminate pancaking of transmission rates that raises the cost of moving power across multiple utility systems. Third, RTOs that have the proper tools can better manage transmission congestion, reduce the instances when power flows on transmission lines must be decreased to prevent overloads, and effectively solve short-term reliability problems. Fourth, RTOs can facilitate transmission planning across a multi-state region and, by operating the grid

as efficiently as possible, may give confidence to state siting authorities that new transmission facilities are proposed only when truly needed. Significantly, the Commission also will be more inclined to defer to the planning, pricing, and control area decisions of an RTO if it fairly represents the interests of all stakeholders through open membership and fair governance procedures.

RTOs can provide these benefits while taking account of state and regional preferences and circumstances. RTOs do not require a one-size-fits-all approach and can be custom-designed. The Commission recognizes the need to be flexible in how these organizations are established, in order to accommodate local concerns. In particular, the development of RTOs will not interfere with state determinations on retail competition policy, transmission siting, local reliability matters, or regulation of retail sales of generation and local distribution. Also, the Commission did not propose to establish by rule fixed or specific regional boundaries under section 202(a) of the FPA. In addition, the Commission proposed to adopt an "open architecture" policy for RTOs, under which all RTO proposals must allow the RTO and its members the flexibility to improve their organizations in the future in terms of structure, operations, market support, and geographic scope to meet market needs.

If its RTO proposal is adopted, the Commission plans to sponsor and support regional workshops and a collaborative process on RTO formation in the spring of 2000. Under this process, the Commission expects public and non-public utilities, in coordination with appropriate state officials and affected interest groups, to participate in working toward the voluntary development of specific RTOs. This process may be particularly important in ensuring that the development of RTOs reflects the unique needs and concerns of non-public utilities, in order to encourage their participation.

Comments on the Commission's RTO proposal are due August 16 and reply comments are due September 15. I have high hopes that the Commission will be able to adopt final rules on RTOs by the end of this year and begin its methodical implementation process. I would note that the Administration's proposed restructuring bill would allow the Commission to require non-public utilities to participate in RTOs.

Reliability

Let me turn next to the issue of reliability. In the past, regulators and industry participants relied upon voluntary industry organizations to establish reliability standards and practices. The regional reliability councils and the North American Electric Reliability Council (NERC) were composed primarily of the transmission-owning public utilities. These companies could and did rely upon voluntary cooperation and peer pressure for compliance. The approach worked well before the advent of competition and the Nation's electricity system became the envy of the world.

Competition in power markets increased concern that reliability rules could not be set or enforced in the same manner. Power markets today have extraordinary numbers of participants and numbers of transactions. New and expanding demands for service on the system change operating conditions and the increasing number of sellers make it harder to stay competitive in many instances. Faced with competitive pressure, some participants may be prompted to cut corners on reliability. Many observers, including NERC and the industry itself, have concluded that a mandatory system for reliability is needed to ensure that competition does not compromise the dependability of our Nation's electricity supply.

With the possibility of noncompliance with voluntary standards, and the current lack of clear authority for anyone to mandate compliance with reliability rules, industry participants have initiated several proceedings at the Commission to address specific reliability issues. In several cases, the industry has asked the Commission to adopt stopgap measures and to decide the lawfulness of new reliability measures under FPA standards ordinarily used to review rates and commercial practices. However, a Commission finding that reliability measures meet these FPA standards does not ensure that the measures are themselves sufficient to maintain system reliability.

In 1998, for example, NERC initiated a proceeding seeking Commission review of NERC's new procedures for reducing power flows to prevent overloads on transmission lines, so-called transmission loading relief (TLR). The Commission concluded that these procedures affected the terms and conditions of transmission service provided by public utilities because they determined which commercial transactions would be curtailed to prevent overloads. The Commission required these procedures to be filed and told the affected utilities to take additional steps

to ensure that the procedures were non-discriminatory. NERC, 85 FERC ¶ 61,353 (1998), order on reh'g, 87 FERC ¶ 61,161 (1999).

Similarly, earlier this year, the Commission accepted on an experimental basis the beginnings of an entire set of regional reliability standards, proffered by industry participants. Western Systems Coordinating Council, 87 FERC ¶ 61,060 (1999). This approach was proposed by the WSCC, the regional reliability council covering the western United States. WSCC's proposal is contractual. Transmission providers would voluntarily sign contracts with the WSCC, agreeing to abide by the WSCC's reliability rules, and require generators connected to their transmission facilities to abide as well. Violations of the standards would result in contractual penalties or other sanctions, subject to the Commission's review. The Commission's limited role is to ensure the reasonableness of rates, terms and conditions of transmission service and to offer to mediate any disputes about possible violations.

The broad support for both the WSCC filing and NERC's proposed reliability legislation demonstrates the industry's recognition that federal reliability legislation and oversight will be important to ensure the future integrity of electric service. Given the Commission's very limited authority in this area, sufficient Federal oversight will be needed to ensure that the standards maintain sufficient system reliability and are not unduly discriminatory or otherwise anticompetitive.

Power Marketing Administrations

Approximately one-third of the Nation's integrated transmission grid is beyond the reach of Order No. 888's open access requirements. For example, because the transmission-owning Federal utilities (such as the Bonneville Power Administration (BPA) and the Western Area Power Administration (WAPA)) and the Tennessee Valley Authority (TVA) are not public utilities, their transmission systems are not subject to the Commission's authority under FPA sections 205 and 206 over interstate transmission. Similarly, many municipal utilities and cooperatives control transmission but are not subject to regulation by FERC under FPA sections 205 and 206, and need not provide open access transmission service under our rules, even though their systems are integrated with, and are affected by, jurisdictional transmission operations. While many non-public utilities such as BPA, WAPA, and the Southwestern Power Administration have voluntarily offered transmission service under FERC-approved open access tariffs, many (including TVA) have not.

Efficient markets in network industries generally require that all transmission service providers within an economic market be subject to the same rules. This gap in the applicability of open access rules on the interstate grid raises serious questions about how competitive and efficient the interstate power marketplace can become. Gaps in open access to the grid can bar customers from reaching lower cost power sources. Other than enforcing the reciprocity requirement, there is little more that the Commission can legitimately do to address this problem under existing law.

Only a change in Federal law can fully close the difficult gap in the availability of open access transmission across regional markets. Such legislation need not intrude unnecessarily into the activities of these entities, including their retail service responsibilities. In fact, the experience of those non-public utilities that have voluntarily adopted open access tariffs demonstrates that open access service consistent with the Commission's requirements is as workable for non-public utilities as for public utilities, although appropriate legislation is needed to address related tax consequences in many cases. However, the full benefits of competition will naturally be delayed until open transmission access is universal.

Conclusion

Competition is growing in the electric industry, in response to the Energy Policy Act of 1992 and the Commission's efforts to remove barriers to competition and to let markets -- not regulators -- determine the price of wholesale electric power. Wholesale competition, however, cannot achieve its full potential without improved access to the interstate transmission grid. Thus, effective regulatory oversight of transmission is a critical prerequisite to greater competition in wholesale power markets.

The Commission's objective, in the final analysis, is to create market structures that will permit it to cede important economic decisionmaking to the marketplace and to substitute light-handed regulation and market monitoring for traditional command and control regulation.

To fully realize the competitive goals set by Congress in the Energy Policy Act of 1992 and promoted by the Commission since then, Federal legislation is needed to: bring all transmission facilities in the lower 48 states within the Commission's open access transmission rules; reinforce the Commission's authority to promote regional management of the

transmission grid through regional transmission organizations; and, establish a fair and effective program to protect the reliability of the bulk power system.

Federal action to promote effective regional market mechanisms in the near future -- whether from the Congress or the Commission -- will be needed to establish a fully competitive wholesale power market for the benefit of all electricity buyers, including retail consumers. Wholesale competition will lay the groundwork for retail competition, where adopted, and continue to ensure efficiency and fairness even where retail access is not present. I continue to believe that one cannot, in this time of industry transition, be both a believer in competition and an agnostic about market structure.

Thank you again for the opportunity to offer my views here this afternoon. I would be pleased to answer any questions you may have.